LATE REPORTS FOR SWAN ISLAND, WEST INDIES

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in percent, obtained by radiosondes*

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	March 1945 Swan Island, West Indies (16 m.)				May 1945 Swan Island, West Indies (10 m.)				Altitude (meters) m. s. l.	March 1945 Swan Island, West Indies (10 m.)				May 1945 Swan Island, West Indies (10 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity		Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	1,015	24.9	79	31	1,012	26.0	82	8,000	31	378	−21.6		28	377	−21.3	
500	31	960	21.3	81	31	958	22.2	82	9,000	31	329	−28.9		28	329	−28.6	
1,000	31	906	18.5	70	31	904	19.7	68	10,000	31	286	−36.2		28	285	−36.4	
1,500	31	854	15.4	67	31	852	16.9	62	11,000	31	247	−43.6		28	246	−44.8	
2,000	31	805	13.1	53	31	803	14.2	57	12,000	31	213	−50.9		28	211	−53.1	
2,500	31	759	11.3	39	31	757	11.6	47	13,000	31	182	−57.5		28	180	−61.1	
3,000	31	714	9.8	21	31	712	9.0	46	14,000	29	155	−63.2		26	153	−68.2	
4,000	31	633	5.0		31	632	3.8	39	15,000	28	131	−68.2		14	129	−72.2	
5,000	31	559	−1.2		29	557	−2.2	42	16,000	18	111	−72.7		5	109	−75.7	
6,000	31	492	−7.6		29	491	−8.2	42	17,000	7	94	−75.1					
7,000	31	433	−14.7		29	431	−14.6	43									

REVISED DATA FOR ELY, NEV.

Raob data for Ely, Nev., for the months of March and April 1945, published in the Monthly Weather Review, were affected in the upper levels by a drift in the calibration of the radiosonde recorder. These data have accordingly been recomputed, and the revised data are shown in the following tables.

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in percent, obtained by radiosondes during June 1945*

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	March 1945 (1,908 m.)				April 1945 (1,908 m.)				Altitude (meters) m. s. l.	March 1945 (1,908 m.)				April 1945 (1,908 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity		Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	804	−2.5	79	30	807	4.2	62	7,000	31	408	−34.8		30	414	−30.9	
500									8,000	30	353	−41.3		29	358	−37.4	
1,000									9,000	29	304	−47.6		27	310	−43.5	
1,500									10,000	27	262	−52.2		25	267	−50.3	
2,000	31	796	−1.3	72	30	798	4.4	55	11,000	23	225	−55.3		24	229	−55.4	
2,500	31	747	−3.2	64	30	751	1.2	51	12,000	22	192	−56.7		21	195	−59.5	
3,000	31	701	−6.9	70	30	705	−2.8	58	13,000	18	164	−55.9		17	166	−59.9	
4,000	31	616	−12.8	59	30	620	−10.5	64	14,000	13	140	−55.8		12	141	−58.4	
5,000	31	539	−19.4		30	544	−17.1		15,000	6	120	−56.3		6	121	−59.1	
6,000	31	471	−27.1		30	475	−23.6		16,000	5	102	−58.2					

RIVER STAGES AND FLOODS

By BENNETT SWENSON

Precipitation during June was above normal from the Appalachians westward to the Rockies except in the Southwest and the extreme North-Central States. Rainfall was excessive in the central Mississippi Valley and in the Utah-Wyoming-Colorado area, with monthly totals ranging from twice to four times the normal. It was particularly dry in the Western and Southwestern States, notably in southern New Mexico and Arizona, where the precipitation was less than 20 percent of normal. Rainfall was somewhat below normal in some Middle Atlantic and South Atlantic States, as well as in portions of the Northeast and the Lake Region.

Floods occurred over a wide area from eastern Texas northward and northeastward to the middle Missouri and the upper Mississippi River basins and to lower Michigan. A number of flash floods in widely separated areas was reported.

St. Lawrence drainage.—Early in June a two-day rainfall, totalling 4 inches in a belt from Bay City to Ludington, Mich., caused flooding in the Muskegon, Pere Marquette, and Tittabawassee Rivers. New record-high stages were observed at some points. The Tittabawassee River crested at Midland, Mich., at 21.8 feet on June 3. The highest stage of record, 23.4 feet, occurred in March 1916 at that point.

The St. Marys River at Decatur, Ind., exceeded flood stage from June 18 to 22, with a maximum stage of 16.8 feet on the 21st.

Atlantic Slope drainage.—Excessive local rains on June 18 in western Connecticut caused considerable flood damage on small tributaries of the Housatonic River near Cornwall Bridge, Conn. Another intense local storm on June 25–26 caused serious flood damage in small streams in the vicinity of Rutland, Vt.

East Gulf of Mexico drainage.—The Pearl River rose slightly above flood stage for short periods at Jackson, Miss., and Pearl River, La., during the month. The

flooding was caused principally by local rains, occurring mainly from June 11–19.

Upper Mississippi Basin.—Minor overflows developed in the lower Chippewa River and in the Kickapoo River from concentrations of heavy rains on June 1–2.

Floods in the Raccoon and lower Des Moines Rivers during June were continuations of those that occurred in the latter part of May. Periods of prolonged rainfall, combined with low temperatures which prevailed in April and May, persisted during June. The June floods, standing alone, were not out of the ordinary. However, the total number of individual overflows and the total number of days above flood stage during any calendar year were exceeded at some stations in the period March–June, inclusive. At Ottumwa, Iowa, there were 41 days with stages above bankfull, equalling the record of 1915, and exceeding by 6 the number of days in 1944. At Tracy, Iowa, stages were above bankfull a total of 40 days.

The Illinois River and the Salt, Fox, and Meramec Rivers in Missouri also were in flood. In the lower Meramec River stages were within several feet of the record flood of August 1915, and upstream at Sullivan, Mo., the crest was only 0.6 foot lower than the all-time high in 1915. The Bourbeuse River at Union, Mo., crested at 19.1 feet on June 10, within 0.1 foot of the record flood of October 1919, at that place.

Moderate flood stages prevailed in the Mississippi River at and below Burlington, Iowa. At St. Louis, Mo., the river has passed flood stage 4 times during the Spring, in consecutive months. Previously, three consecutive months with a stage of 30 feet (flood stage) or higher had been the record; these were recorded in 1892, 1915, 1927, and 1943. Crest stages at St. Louis during 1945 were as follows: March, 32.4; April, 33.9; May, 32.1; and June, 35.3 feet.

At Cape Girardeau, Mo., the crest of 38.2 feet on June 15 has been exceeded in only 4 previous years.

Missouri Basin.—The Missouri River exceeded flood stage from Nebraska City, Nebr., to the mouth, and most of the tributaries from Sioux City, Iowa, downstream were in flood. Heavy to locally excessive rains on June 15 over northern Kansas, eastern Nebraska, western Iowa, and northern Missouri caused rapid rises and considerable overflow in this area. Stages were generally below those of April this year and the floods of 1943 and 1944. Notable exceptions were the Delaware River in Kansas and the headwaters of the Gasconade River in Missouri, where record or near record stages were reached.

On June 8–9, excessive rainfall averaged 3 inches or more over the Gasconade and Meramec River basins, with local amounts of 6 inches or more. The heavy rains centered over the headwaters of the Gasconade in the vicinity of Newburg, Mo. Five lives were reported lost, and considerable property damage occurred in Newburg.

Ohio Basin.—Floods during the month were confined to the Scioto River in Ohio, the Wabash River system, and the extreme lower Ohio River at Dam 53 and Cairo, Ill. No excessive stages were reported. The principal feature was the prolonged rainy spell which resulted in long periods of above flood stage, especially in the White and lower Wabash Rivers. At Hazleton, Ind., the river was above flood stage a total of 72 days during the past 4 months, and at Mt. Carmel, Ill., 63 days.

White, Red, and Arkansas Basins.—Persistent rainstorms in Kansas, Oklahoma, Missouri, and Arkansas have kept streams in this area at above normal stages, and there have been repeated and recurring floods. For the White River readings have been almost continuously above flood stage since February.

Heavy rains on June 9–10 occurred along the Arkansas River below Muskogee, Okla., and resulted in high stages in the Arkansas and Poteau Rivers. At Fort Smith, Ark., an all-time record rainfall of 4.66 inches occurred in 2 hours and 14 minutes, and a 24-hour total of 10.47 inches occurred at Webbers Falls, Okla.

The floods in the Red River Basin were caused by excessive rains over the area below Denison Dam and locally heavy rains in the Lake Texahoma watershed. Precipitation ranged from 2.5 to 8 inches on June 12–14, followed by 2 to 3 inches on June 17–18. Several stations in southeastern Oklahoma recorded 7.8 to 13.7 inches of rain during the month.

West Gulf of Mexico drainage.—Considerable overflows occurred in the Sabine River, and moderate flood stages prevailed in the Trinity River.

Pacific Slope drainage.—The annual high water in the Kings River from melting snow occurred during mid-June. The water was diverted into canals for irrigation purposes, and no damage occurred.

The Columbia River reached its annual crest at Vancouver, Wash., on June 10–11, with a reading of 18.4 feet. There was no damage except erosion of river banks, flooding of low-lying pastures, and some delay to shipbuilding.

FLOOD-STAGE REPORT FOR JUNE 1945

[All dates in June unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest [1]	
		From—	To—	Stage	Date
ST. LAWRENCE DRAINAGE					
Lake Huron	*Feet*			*Feet*	
Tittabawassee: Midland, Mich.	18	2	5	21.8	June 3
Lake Erie					
St. Marys: Decatur, Ind.	13	18	23	16.7	21
ATLANTIC SLOPE DRAINAGE					
Susquehanna: Oneonta, N. Y.	12	May 14	May 14	12.1	May 14
		May 18	May 18	12.4	May 18
EAST GULF OF MEXICO DRAINAGE					
Pearl:					
Jackson, Miss.	18	15	16	18.7	16
		18	18	18.7	18
		20	22	18.8	21
Pearl River, La.	12	21	25	12.8	23
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Chippewa: Durand, Wis.	11	4	6	11.5	5
Zumbro: Thielman, Minn.	35	2	3	35.8	2
Rock: Moline, Ill.	10	30	July 4	10.2	June 30–July 2
Cedar: Waterloo, Iowa	12	2	3	12.8	2
Raccoon:					
Jefferson, Iowa	12	May 23	May 26	13.1	May 24
		May 29	May 29	12.0	May 29
		1	6	14.2	3
		10	11	13.4	10
VanMeter, Iowa	13	May 31	1	15.2	May 31
		4	7	15.7	7
		13	13	13.0	13
Des Moines:					
Tracy, Iowa	14	May 25	11	17.6	May 27
				14.6	3
				16.2	7–8
		21	21	14.2	21
Eddyville, Iowa	15	May 25	12	18.6	May 27
				17.4	8
				17.2	11
		15	18	15.5	16–17
		21	21	15.8	21
Ottumwa, Iowa	9	May 25	12	12.1	May 28
				11.0	6
				10.9	9
				10.8	11
		16	17	9.2	16
Fox: Wayland, Mo.	15	16	17	17.3	17
Salt: New London, Mo.	19	May 17	May 19	22.0	May 18
		8	11	23.3	10
		17	17	19.2	17

See footnotes at end of tables.